



# Alberta INDUSTRIAL NEWSLETTER

DEPARTMENT OF INDUSTRY AND DEVELOPMENT / Hon. A. R. PATRICK, Minister  
INDUSTRIAL DEVELOPMENT BRANCH / R. MARTLAND, Director

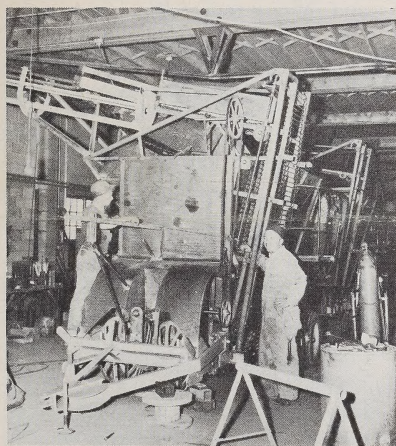
- VEGETABLE PRODUCTION
- CONCRETE FORMS
- FLOATING PUMP
- UTILITIES CASTINGS

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EDMONTON, ALBERTA, CANADA

OCTOBER 1962

## Lethbridge Agricultural Firm Designs Own Units



*Finishing touches are being put to a beet harvester at the Lethbridge plant. The intricate machine utilizes a converging wheel pick up and a chain carrying system to the hopper.*

**S**PECIALIZED knowledge and practical experience in the requirements of irrigation farming are being utilized in the manufacture of agricultural equipment by Kirchner Machine Co. of Lethbridge.

The company, wholly owned by E. R. and H. A. Kirchner, was originally formed as a sales distributing agency for products of their own design. In 1950, the plant began production of its own patented line of farm equipment, such as sugar beet harvesters, land levellers, toppers and irrigation maintenance machinery. Incorporated into the design of Kirchner machines are such specialized advancements as the converging wheel beet pickup which carries the beet from the ground with minimum damage, and the tension controlled rubber flail used for removing the leafy tops from sugar beets.

Basic material used in the production of Kirchner machinery is milled steel in channel, angle and rounds purchased competitively at the rate of seven carloads per year from Canadian and United States manufacturers.

Basic equipment in the 48 x 108 foot cement block plant located at 2005 - 2 Ave. S., Lethbridge, was made by the eight company employees. Value of building and equipment is estimated at \$45,000.

Using magnetic die cutters for producing gear wheels and other components, and company-made pattern punches, the plant turns out one major machine, such as a beet harvester, and one smaller piece of equipment, every five days. About two-thirds of production is sold locally and the remainder exported to irrigation areas in the United States.

Kirchner Machine Co. and its subsidiary distributorship gross an annual \$300,000. Annual payroll is \$40,000. ●



# Portable Floating Pump Has 32,000 gph Capacity



*The pump, floating on the river while turning out some 30,000 gallons per hour.*



*Riverside test at Edmonton shows dealers how the pump works under practical conditions.*

A PORTABLE, self - priming pump that floats, weighs only 60 pounds, and can pump as much as 32,000 gallons of water per hour is being manufactured in Calgary and marketed under the trade name of Tornado Pump.

The revolutionary new centrifugal pump operates on the rotary injection principle, and eliminates some of the problems of conventional type pumps because it requires no intake hose to become plugged or drawn under.

The circular body of the pump is 27 inches in diameter and is made in two sections — a bottom strainer housing of aluminum, and an upper float chamber of fiberglass packed with airfoam filler to give it buoyancy. The pump motor is mounted on a small upper diaphragm which rests on a larger diaphragm bolted to the float chamber. The entire unit rests on the water, and will draw from as little as three inches depth.

Another unique feature of this new Tornado pump is the col-

lapsible plastic outlet hose, which can be rolled into an easily-carried parcel. This six-inch polythylene hose is of 12 mil thickness, has a regular length of 200 feet, although shorter or longer seamless lengths are available if required. A flexible wire gasket fits into the lip of the outlet hole on the pump, and the flow of water creates an airtight seal immediately the pump starts to operate. The hose is practically non-whipping and shows great stability when laid out on the ground.

The 3½ h.p. Tecumseh motor uses gasoline and will operate 45 minutes normal running time on only one pint of fuel, at a cost of only 10 cents per hour. If preferred, continuous feed can be made from a jerry can, through the diaphragm carburetor.

The high pumping power, portability, and lightweight qualities of the Tornado pump give it a diversity of application which includes dewatering excavations, drainage of flooded areas, irrigation, excess road drainage, water-

ing livestock, pipeline construction drainage, and for the agriculture and mining industries.

The Tornado pump is the invention of a Calgary man, Joseph Tudor, who is president of the Tornado Pump Co. Ltd. The company utilizes component parts manufactured locally in Calgary.

To date approximately 50 Tornado pumps have been manufactured and delivered, and the company is now gearing for regular production with an estimated market of 2,000 units in Canada alone this year. They anticipate entering the United States market in 1963.

Marketing is handled by Tornado Pump Sales Ltd., 1609 Kensington Avenue, Calgary, under the presidency of Nelson Norton, with D. E. Flamme as Sales Manager. Dealer inquiries are invited and should be directed to Mr. Flamme.

Plans for the future include the development of a 10-inch pump already on the drafting boards, that will move 60,000 gallons per hour. ●



## WESTERN CANADA'S UTILITY SERVICES NEEDS SERVED FROM MEDICINE HAT FACTORY



Medicine Hat manager O. F. Weiss is shown examining a supply of fire hydrant fittings prior to their shipment to a western Canadian community.

CANADA'S booming growth of residential areas and the resultant demand for utilities and services has provided work for approximately sixty Albertans for the past seven years at the Medicine Hat plant of T. McAvity & Sons Limited which produces fire hydrants, underground valves and municipal water works castings to serve the prairie provinces.

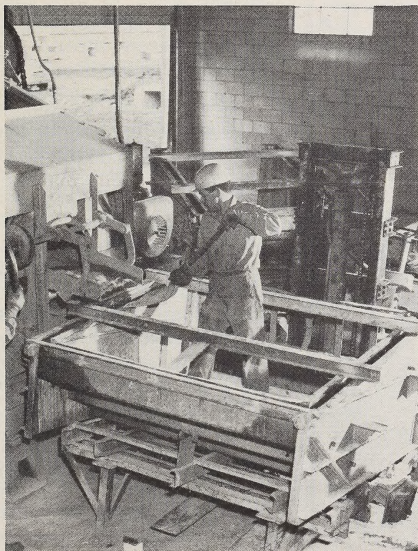
T. McAvity & Sons Limited is one of Canada's oldest Corporations, having been founded in Saint John, New Brunswick, in 1834 and from the turn of the century has supplied a large portion of Western Canada's requirements of the above noted products, originally from Saint John, N.B. and latterly from the Medicine Hat plant.

Control of T. McAvity & Sons Limited was acquired by Crane Canada Limited in 1960, however, the Company has retained its corporate identity although now part of the Crane group.

The production of the Medicine Hat plant is truly Canadian, as, with the exception of moulding sand and coke, its raw material comes from Canadian sources. Articles produced are cast and machined ready for use in Medicine Hat.

This Division of the Company is truly a part of the constantly increasing manufacturing potential of Western Canada. It is located in a 29,000 square foot brick and steel building at 801 Smelter Ave. E. The firm employs fifty people in office and plant. ●

## Thriving Young Alberta Concrete Firm Serves Prairies



At the Kruger Concrete Products plant, workmen are shown filling one of the steel casts with concrete to form house steps.

SERVING markets in western Canada and primarily in the Calgary area, P. Kruger Concrete Products (Calgary) Ltd., manufactures precast concrete sidewalk slabs and steps for wholesale and retail sale.

The young Alberta owned company, first established in February, 1959 by three Alberta businessmen, occupies a 5800 square foot concrete building set on one acre of land in southeast Calgary. The site provides ample manufacturing space and a large outside storage area. Included in the \$35,000 building is a small office, a large production floor specially built for easy access, and three steam rooms.

The company has a 16 cubic foot cement mixer which supplies approximately one half of the concrete used. The balance is purchased locally from a ready-mix company.

Large steel forms which hold in position reinforcing iron rods, are filled with fresh concrete directly from the mixer. The resultant hollow casting is placed in the steam room overnight to ensure proper drying before shipment.

Sidewalk slabs are poured in trays on an assembly belt operation. The plant is equipped to provide any color of patio blocks which are also poured in smaller trays and seasoned in the steam room. Daily production is set at 15 step castings and 250 sidewalk slabs.

P. Kruger Concrete Products employ 14 men and one office worker regularly and also take on occasional labour during the busy summer construction season. In the three years since it was formed the company has steadily advanced to the point where 1961 gross sales approximated \$200,000. ●



## Alberta Opens Los Angeles Office to Encourage Industry, Travel

ALBERTA businessmen are showing considerable interest in the scheduled opening of a branch office of the Alberta Department of Industry and Development in Los Angeles. The office will exchange industrial and travel information between this province and the western United States.

The modern ground floor office, to be officially opened by Premier E. C. Manning, on October 23, is located on Grand Street in downtown Los Angeles, along "Fabulous Transportation Row." In close proximity to the Alberta office are the west coast branches of most major airlines, steamship companies as well as Canadian and American banking organizations.

The 1,000 square foot Alberta office will be fronted by an impressive glass and steel exterior with green and gold lighted neon identification. It will be staffed by a male supervisor and one female assistant, both from Alberta.

Named to direct the office is Lewis D. Robinson, formerly administrator at the Calgary branch of the Department of Industry and Development.

Among the duties of the supervisor will be the contacting of industrialists and business organizations to promote Alberta investment and encouragement of use of Alberta made goods in the United States. In addition, he will be available to travel agencies, motor clubs, schools and universities for speaking engagements promoting travel in Alberta. The services of the Los Angeles branch are also extended to Albertans travelling on business or vacation in the Los Angeles area. ●

*Artist's conception of design of the front of the Los Angeles office of the Department of Industry and Development.*



Authorized as Second Class Mail, Post Office Dept., Ottawa, Ont., and for payment of postage in cash.

## Opportunity Seen In Production of Fresh Vegetables

Alberta is a major producer and exporter of important processed agricultural products such as meat, flour, canned and frozen vegetables, sugar and butter to cite a few. However, the area of fresh vegetable production, a significant gap in local production is evident.

What is not widely known is that southern Alberta is so endowed with favourable production factors such as soil, climactic conditions, altitude and water supplies that the fresh vegetables grown in this area are equal to if not superior to vegetables grown elsewhere on the continent. The area is one of the most highly fertile agricultural regions of North America.

The market potential for fresh vegetable production whether measured in terms of dollar volume of foreign imports or unloadings of both Canadian and imported produce is substantial. An examination of the tabular material presented below indicates that foreign imports into Alberta alone, of such common place items such as carrots, celery and onions exceed three quarters of a million dollars annually.

Fresh vegetables can be successfully grown in Alberta and the market potential is evident. What is the key requirement to serve this market with local produce and stem the flow of foreign imports? Facilities are required to grade, process, store and package fresh vegetables in a fashion acceptable to the wholesale trade. Wholesalers have indicated the willingness to purchase local produce but quality merchandise must be properly packaged and continuity of supply assured.

The Field Crops Branch of the Alberta Department of Agriculture and the Industrial Development Branch of the Department of Industry and Development in Edmonton welcome enquiries on this subject.



**FOREIGN IMPORTS OF FRESH VEGETABLES  
CLEARED AT CUSTOMS' PORTS IN THE FOUR WESTERN PROVINCES  
1960**

Product		BRITISH COLUMBIA		MANITOBA		SASKATCHEWAN		ALBERTA	
		Quantity	Value \$	Quantity	Value \$	Quantity	Value \$	Quantity	Value \$
Asparagus .....	Lb.	1,482,671	223,731	144,006	19,177	14,915	1,768	108,798	15,238
Beans, green .....	Lb.	358,498	53,001	78,240	9,013	3,219	132	44,896	6,892
Beets, fresh, except sugar beets .....	Lb.	164,042	4,417	133,143	4,167	1,987	54	25,405	939
Cabbage, fresh .....	Lb.	7,217,599	223,856	4,455,993	133,249	2,852,887	88,530	5,837,250	182,641
Carrots .....	Lb.	10,767,894	389,011	4,959,459	130,621	1,574,737	56,961	5,514,769	208,185
Cauliflower .....	Lb.	3,580,682	256,315	758,991	70,266	436,229	45,435	2,212,367	212,820
Celery .....	Lb.	9,990,125	376,031	4,030,646	224,684	3,267,953	208,993	8,028,319	395,688
Cucumbers .....	Lb.	1,087,288	86,765	1,005,687	74,430	43,480	5,500	773,578	75,973
Lettuce .....	Lb.	18,167,097	740,973	11,533,438	477,208	7,024,971	301,863	17,014,161	708,852
Onions .....	Lb.	13,158,541	397,410	4,613,275	138,948	1,841,007	66,202	5,797,284	217,851
Potatoes, sweet and yams .....	Cwt.	14,768	161,216	4,583	32,231	524	3,924	8,254	71,033
Potatoes, fresh, except seed .....	Cwt.	387,072	1,208,579	226,587	558,890	54,252	143,997	81,978	229,369
Pinach .....	Lb.	916,221	43,656	96,752	9,799	5,490	695	117,633	14,148
Tomatoes .....	Lb.	19,138,219	1,447,623	11,035,021	832,738	6,073,747	478,021	13,965,281	1,092,868
Vegetables, n.o.p. .....	Lb.	12,602,407	890,757	2,268,437	183,077	1,033,399	91,713	5,462,084	436,240

**NUMBER OF UNLOADS OF VEGETABLES IN CALGARY AND EDMONTON  
BY COMMODITIES—1961**

	Imported From Other Canadian Provinces				Imported from U.S.A.				Total	
	Edmonton		Calgary		Edmonton		Calgary		Rail & Truck	
	Rail	Truck	Rail	Truck	Rail	Truck	Rail	Truck		
Russel Sprouts .....	—	—	—	—	1	6	—	3	1	9
Cabbage .....	19	2	6	2	52	41	18	34	95	79
Carrots .....	37	—	15	31	34	28	25	19	111	78
Cauliflower .....	—	—	—	—	18	55	7	49	25	104
Celery .....	1	—	—	—	51	137	10	96	62	233
Corn .....	3	—	1	2	12	11	8	10	24	23
Cucumbers .....	31	15	5	4	—	23	—	7	36	49
Lettuce .....	—	—	—	—	177	168	136	96	313	264
Onions .....	74	12	41	6	70	27	44	7	229	52
Potatoes (Irish) .....	53	1	23	3	94	12	62	1	232	17
Potatoes (Sweet) .....	—	—	—	—	—	9	—	8	—	17
Radishes .....	—	—	—	—	—	11	1	4	1	15
Tomatoes .....	22	4	23	—	167	107	120	104	332	215
Turnips .....	5	—	1	1	—	—	—	—	6	1
Fixed Vegetables .....	11	—	13	9	18	6	26	21	68	36
Fixed Fruit and Vegetables .....	6	1	13	—	10	—	10	4	39	5
Totals .....	262	35	141	58	704	641	467	463	1,574	1,197



# Prestressed Concrete Beams Ready to Use in 24 Hours

T-shaped concrete beams, up to 120 feet in length, are being manufactured at a plant on Edmonton's south side. In addition to fulfilling contracts for schools, bridges, and other structures, Perma-Crete Precast Concrete Products Ltd. are at the same time constructing their own plant which, when finished, will measure 500 feet in length, with a shop width of 62 feet. Various service areas such as a boiler room, welding shop, carpenter shop and tool crib, are all located to one side of the main part of the plant. This adds an additional 30 feet to the width of the building, which is constructed almost entirely of concrete. The plant is located at 64th Avenue and 75th Street, in the south-east corner of Edmonton.

To make the beams, the concrete, which is purchased under contract from Underwood Transit Mixes Ltd., is poured into prepared beds or moulds. The steel forms for the pretensioning beds were purchased from Union Iron and Engineering in Calgary and all wooden forms for conventionally reinforced members are manufactured in the plant's carpenter shop. Preparation consists of pre-

stressing by means of high-tensile steel strands. The strands are placed at regularly-spaced intervals in the leg of the T, and are pulled tight under extreme tension by an hydraulic jack. Tension on the individual strands varies from 13,000 lbs. for  $\frac{3}{8}$ " strand to approximately 19,000 lbs. for  $\frac{7}{16}$ " strand. Depending on the depth of the T, there may be from 4 to 20 strands running the length of slab for double tees and as high as 30 or more strands for the single tees.

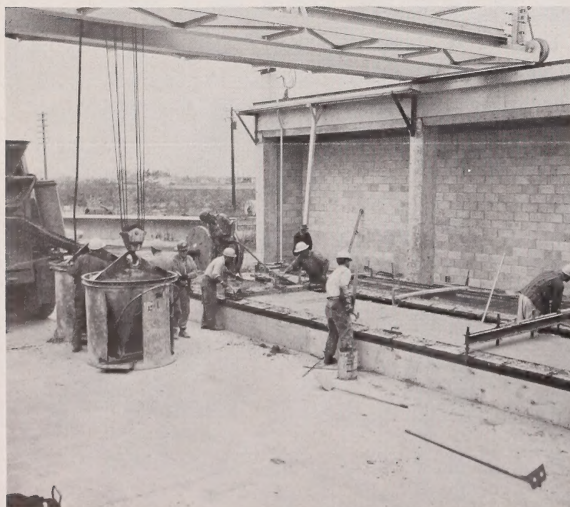
Setting of the concrete is speeded by means of heating ducts through the centre of each bed, providing heat at about 140 degrees Fahrenheit. The entire process, from the pouring of the cement to the removal of the finished beam from the bed, takes just about 24 hours.

The completed concrete forms, which may include single and double T-shaped beams and support columns and solid beams, as well as smaller items, are lifted from the beds by means of an overhead travelling crane. This crane, which was designed and constructed by Fred S. Tappenden of Edmonton, has a lift capacity of approximately 15 tons, and travels

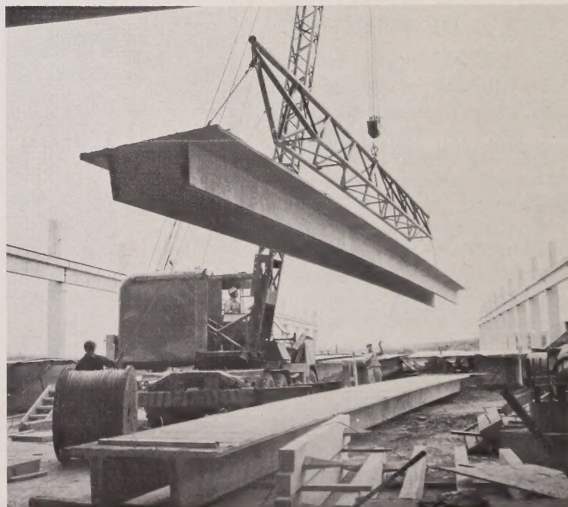
from one end of the building to the other at a maximum speed of 200 feet per minute. Mr. Tappenden also made the hydraulic jacks which are used in the pre-stressing.

During the month of August and September, part of the production was comprised of 51 single T-shaped beams (each being approximately 95 feet long and weighing 30 tons), which were shipped to Grande Prairie for use in the construction of the new Vocational Training School.

The Perma-Crete plant, which was started in March of this year, went into production in May, and involves an investment of approximately one-quarter of a million dollars. Some 35 to 40 men are employed in the plant, and an additional eight to ten in the office. The firm's annual payroll is estimated at \$175,000. Ralph Ulveland is president of Perma-Crete Precast Concrete Products Ltd., Ronald Cleveland is Manager and Chief Engineer, and Jim Kullman is plant manager. Future plans of this young company include completion of the present plant location, construction of an office building adjacent to the plant, and expansion to other parts of the province.



Workmen level off the wet cement in one of the beds, while the overhead travelling crane prepares to pick up an empty vat and move it out of the way.



A 62-ft. double T-shaped beam is being hoisted into place as a section of the roof of the Perma-Crete plant.



# TOWN OF OKOTOKS

**Location:** Part of N.W. and N.E. sections of 28-29-20-20 North 4th Meridian in Census Division No. 6. The Town of Okotoks is located on Highway 2A and the Canadian Pacific Railroad, 14 miles south of Calgary.

**Altitude:** 3447 feet.

**Temperature:** Average summer, 59.5 degrees F; average winter, 17.3 degrees F; annual average 39.0 degrees F.

**Rainfall:** Average annual rainfall, 11.77 inches; average annual snowfall 57.0 inches; average annual precipitation; 17.47 inches.

**Geology:** Underlying rocks in Okotoks district are shales and sandstone, several hundred feet thick. Forming part of the Paskapoo Formation they have been given an early Tertiary age. Many of the smaller hills and elevations contain glacial deposits.

**Soil:** Okotoks lies in the Thin Black soil Zone.

**History:** The town received its name from the Black-foot word "okotoks" or rock because of a large boulder which was the landmark at the old Sheep River crossing a few miles from the present townsite. A trading post established at Sheep River Crossing in 1874 was the first development near the present town. After the arrival of the C.P.R. in 1883, many homesteaders settled in the area. Okotoks was incorporated as a town in 1904.

**Administration:** The town is governed by a mayor elected for a two year term and six councillors, two of which are elected each year for three year terms. The town's affairs are administered by a secretary-treasurer in accordance with policy set by the Council.

**Law Enforcement:** Policed by Royal Canadian Mounted Police under contract. One Corporal and five Constables stationed in the town including a Highway Patrol. There is also a Police Magistrate and a Sheriff.

**Fire Protection:** The Fire Brigade consists of a Chief and 12 volunteer firemen. Included in the modern equipment one 500 G.P.M. pump with 400 gallon water tank; one 800 gallon tank truck, portable pump hose and ladders. There are 18 fire hydrants located throughout the town.

**Tax Structure:** The 1962 mill rate is 55 mills comprising Municipal, 19 mills; School, 25 mills; Hospital 3 mills and debenture, 8 mills. Total assessment was \$1,529,191 made up of 100% assessed value of land and improvements.

**Areas:** Total area of town 515 acres. Parks and playgrounds, 14 acres. Streets and highways 22 acres.

**Sewer and Water Mains:** Sanitary sewers 4.10 miles. Water mains 4.25 miles.



OKOTOKS  
ALBERTA

**Power:** Three phase 60 cycle electric power is supplied under franchise by Calgary Power Ltd. at the following rates; Domestic; available only for lighting, heating, cooking and ordinary uses in private homes and apartments used exclusively for residential purposes.

First 20 KWH or less used per month \$2.60 gross minimum. Subject to 30 cents prompt payment discount.

All over 20 KWH used per month, 2 cents per KWH. Connection charge for new customers \$1.00. Reconnection charge, \$4.60.

Commercial and general service rate: Minimum monthly charge \$2.30 for first KWH or fraction of consumer's rated demand up to 20 KWH. Connection charge for new customers each ½ KW or fraction thereof including up to 5 KWH per month. For first 100 KWH used per month per KW of rated demand, 6 cents per KWH. All additional 2 cents per KWH. Power service available for three phase motors, welders x-ray equipment etc., three KVA or over.

**Water:** Obtained from two wells 20 feet deep. Water is pumped into a 50,000 gallon underground reservoir and a 400,000 gallon standpipe.

**Natural Gas:** Supplied under franchise by the Canadian Western Natural Gas Company at the following rates:

General rate, First 2 MCF or less \$3.00 per month. All additional, 34.5 cents per MCF. Minimum monthly charge, \$3.00.

Optional rate: Available to all customers whose annual consumption exceeds 18,650 MCF.

Fixed charge 150.00 per month, plus commodity charge of 25 cents per MCF.

Special Service: Available to customers located adjacent to and served directly from main trans-



mission lines serving Calgary-Lethbridge system, and whose annual consumption exceeds 200,000 MCF. Fixed charge, \$650.00 per month, plus commodity charge 22 cents per MCF.

**Optional rate High Load Factor:** Available to customers whose annual consumption is more than 10,000 MCF and whose total consumption during the six meter reading periods ending in May, June, July, August, September and October is not less than 40% of annual consumption; Fixed charge \$20.00 per month plus \$1.75 per month per MCF of maximum 12 hour demand, plus commodity charge, for first 4000 MCF per month, 17 cents per MCF.

**Additional MCF per month** 16 cents MCF.

**Special Service:** Available to customers located adjacent to the main Calgary-Lethbridge transmission lines and whose annual consumption exceeds 150,000 MCF and whose total consumption during the six meter reading periods May to October inclusive is not less than 40% of annual consumption.

**Fixed charge:** \$20.00 per month plus \$1.00 per MCF of maximum 12 hour demand, plus commodity charge, first 75,000 MCF per month 17 cents per MCF.

**All additional MCF per month** 15 cents per MCF.

**Other Fuels:** L.P. gas is available in bulk at 15 cents per gallon delivered. 100 pound cylinders \$5.00. Diesel fuel available at 17 cents per gallon.

**Local Resources:** Wheat and coarse grains, horses, cattle, sheep and hogs, coal, gas, oil, dairy products, poultry, sand, gravel, water, clay for bricks.

**Government Offices and Services:** Federal, Post Office; Provincial, Alberta Government Telephones, Police Magistrate, Treasury Branch Agency, Civil Defence; Municipal, Town Office, Foreman of works, Police Department, Fire Department, Cemetery, Library, weekly garbage collection.

**Health Services:** There is no hospital in the town. Persons requiring hospital attention are attended at Calgary. There are two doctors, one drug store and one veterinarian in the town.

The High River Health Unit calls monthly.

**Transportation:** Calgary-Lethbridge line of C.P.R. Greyhound Buses, two buses daily each way between Fort Macleod and Calgary. Sorenson Buses, one commuter bus daily between Calgary and Turner Valley. Daily truck service between Calgary and Lethbridge.

**Newspaper:** Okotoks Review—weekly.

**Communications:** Alberta Government Telephones, C.P.R. telegraphs. Nearest radio stations at Calgary, CFAC, CFCN, CKXL. Television stations at Calgary, CHCT-TV, CFCN-TV.

**Financial Facilities:** Royal Bank of Canada, Treasury Branch Agency.

**Hotels:** Willingdon Hotel, Rushmore Lodge Tourist Camp.

**Fraternal and Service Clubs:** Masons, Elks, I.O.D.E., Canadian Legion, Chamber of Commerce.

**Education:** Okotoks School District No. 178 is a unit of the Foothills School Division. Grades I to XI are taught with optional subjects. Nine school buses transport students from rural areas to the town schools.

A privately operated kindergarten is available for pre-school children.

**Cultural Activities:** Extension Library, Handicraft Guild, local orchestra, music teachers for piano, violin, vocal. Scouts, 4H Club, C.G.I.T., Explorers, Guides, Brownies.

**Sport Facilities:** Hockey, baseball, curling, swimming, fishing, trap shooting. Covered curling rink has three sheets of artificial ice. Covered hockey arena also artificial ice accommodates 2,000 spectators. Natural swimming pool and concrete wading pool.

**Churches:** Anglican, Roman Catholic, United, Gospel Chapel.

**Population:** Trading area population 1961 Census, 7672. Town population 1961 census, 1043.

**Industrial Development:** Originally, ranching was the main industry in the area. This was changed during the past years to ranching and raising grain. District farmers are noted for prize winning livestock which have received awards in Canada and the United States.

The discovery of natural gas has attracted allied industries to the area. A sulphur extraction plant employing 50 men is located one mile east of town.

Other industries using natural gas are mooted for the town in the near future.

**Sites:** Residential and industrial sites adjacent to trackage and highway if required, are available from the Town of Okotoks. The reasonably priced land can be serviced with all utilities. ●

For further information about Okotoks write

**Secretary Treasurer  
Town of Okotoks  
Okotoks, Alberta**

or

**R. MARTLAND  
Director of Industrial Development  
Department of Industry and Development  
502 Administration Building  
Edmonton, Alberta.**